

## Appendix D



USFWS

*Controlled burn at Massasoit National Wildlife Refuge*

# Fire Management Program Guidance

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## Introduction

The mission of the National Wildlife Refuge System (Refuge System) is “to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans” as stated in the National Wildlife Refuge Improvement Act (October 9, 1997)

## The Role of Fire

Historically, natural fire and ignitions by Native American people played an important disturbance role in many ecosystems by removing fuel accumulations, decreasing the impacts of insects and diseases, stimulating regeneration, cycling nutrients, and providing a diversity of habitats for plants and wildlife.

In the heavily fragmented and manipulated areas of the northeastern U.S., that role of fire has been modified significantly. However, when fire is used properly it can:

- Reduce hazardous fuels build-up in both wildland urban interface and in non-wildlife urban interface areas.
- Improve wildlife habitats by reducing the density of vegetation, and/or changing plant species composition.
- Sustain and increase biodiversity.
- Improve open woodlands and shrub lands by reducing plant density.
- Reduce the susceptibility of plants to insect and disease outbreaks.
- Assist in the control of invasive and noxious species

## Wildland Fire and Management Policy and Guidance

In 2001, the Secretaries of the Departments of Interior and Agriculture approved an update of the 1995 “Federal Fire Policy.” The 2001 “Federal Wildland Fire Management Policy” directs Federal agencies to achieve a balance between fire suppression to protect life, property and resources, and fire use to regulate fuels and maintain healthy ecosystems. It also directs agencies to provide a management response to all wildfires, commensurate with values at risk, safety, and costs for suppression.

This policy provides nine guiding principles that are fundamental to the success of the fire management program. Firefighter and public safety is the first priority in every fire management activity. The role of wildland fires as an ecological process and natural change agent will be incorporated into the planning process.

Fire management plans (FMPs), programs, and activities support land and resource management plans and their implementation. Sound risk management is the foundation for all fire management activities. Fire management programs and activities are economically viable, on the basis of values to be protected, costs, and land and resource management objectives. Fire activities, including FMPs, are based on the best available science and incorporate public health and environmental quality considerations. Federal, state, Tribal, local, interagency and international coordination and cooperation are essential. Standardization of policies and procedures among Federal agencies is an ongoing objective.

The fire management considerations, guidance, and direction should be addressed in the land use resource management plans, such as comprehensive conservation plans (CCP). The FMP is a stepdown plan derived from the land use plans and habitat plans, with more detail on fire suppression, prescribed fire and fuels management activities.

## Management Direction

Massasoit National Wildlife Refuge (Massasoit NWR) was established in 1983 “to conserve the federally endangered Northern red-bellied cooter, as well as other wildlife and plant species.” Comprised of 209 acres, this refuge is in Plymouth, Massachusetts. It is made up of three parcels: the Crooked Pond parcel which abuts the Myles Standish State Forest, Massachusetts’ second largest State forest; and two smaller parcels with frontages on Island Pond, Gunners Exchange Pond, and Hoyt Pond (map 1-1). Massasoit NWR is located within

an area designated as critical habitat for the northern red-bellied cooter. The refuge also provides habitat for other wildlife and plant species including rare moths and other native pollinators, migratory songbirds, and small mammals. Massasoit NWR is one of eight refuges that comprise the Eastern Massachusetts National Wildlife Refuge Complex (Refuge Complex), headquartered in Sudbury, Massachusetts. The most recent wildfire near the refuge was in 1995 when 95 acres burned and 100 homes were threatened (Crosby 2001, updated 2007). There have been ongoing hazard fuel reduction and resource management activities involving the use of prescribed fire.

Prescribed fire will be used as a future management tool to promote and accomplish the goals set forward in the CCP:

- Protect and enhance U.S. Fish and Wildlife Service (Service) trust resources and species and habitats of special concern.
- Maintain a healthy and diverse complex of natural community types comprised of native plants and animals to pass on to future generations of Americans.
- Conduct effective outreach activities to promote quality onsite and offsite wildlife-dependent public use programs to raise public awareness of the Refuge and the Refuge System, and to promote enjoyment and stewardship of natural resources in eastern Massachusetts.
- To work collaboratively with other refuge land management partners when protecting or enhancing landscapes from wildfire or applying fire (prescribed).

All aspects of the fire management program will be conducted in a manner consistent with applicable laws, policies, and regulations. Massasoit NWR will maintain a FMP to accomplish the fire management goals that follow (see Fire Management Goals). Any future prescribed fire, chemical, manual, and mechanical fuel treatments will be applied in a scientific way, under selected weather and environmental conditions.

## **Fire Management Goals**

The goals and strategies of the Refuge System Wildland Fire Management Program Strategic Plan are consistent with Department of THE Interior and the USFS policies, National Fire Plan direction, the President's Healthy Forest Initiative, the 10-year Comprehensive Strategy and Implementation Plan, National Wildfire Coordinating Group Guidelines, initiatives of the Wildland Fire Leadership Council, and Interagency Standards for Fire and Aviation operations.

The current fire management goals for the refuge are to use prescribed fire to protect Service lands and wildlife from wildfire and to use prescribed fire as a tool to maintain a fire adapted ecosystem and meet the habitat goals and objectives identified in this CCP.

## **Fire Management Objectives**

The purpose of the fire management program is to use prescribed fire, chemical, manual, and mechanical treatment to: Ensure public and firefighter safety while protecting property and natural resource values from wildfire.

- Reduce the wildfire impacts to all resource management activities. Reduce the threats associated with accumulations of hazardous fuel loads in upland habitats.
- Provide, enhance, and protect habitats for State and Federal endangered, threatened, and candidate species and species of special concern.
- Provide, maintain, enhance, and protect feeding, resting, nesting, and brood habitat that meet the requirements of migratory waterfowl, other migratory birds, and resident wildlife.
- Maintain health and vigor of the fire adapted pitch pine-scrub oak shrubland (sandplain heathland community), pitch pine-oak woodland/forest associations.

- Facilitate the control of invasive and exotic species.
- Increase habitat diversity in refuge upland habitats.
- Demonstrate and educate the public about the role and benefits of wildfire protection and prescribed fire use in resource management.
- Maintain ecosystem diversity within a landscape context.
- Comply with State Air Quality Implementation Plans and regulations to protect public health and the environment.

## Strategies

Massasoit NWR will use strategies and tactics that consider public and firefighter safety, as well as resource values at risk. Wildfire suppression, prescribed fire, chemical, manual, and mechanical treatment methods, along with timing, and monitoring are described in more detail within the stepdown FMP.

Prescribed fire plans will be developed for specific sites, following the interagency Prescribed Fire Planning and Implementation Procedures Reference Guide (2013) template. Prescribed fire has the potential to reduce air quality by diminishing visibility and releasing pollutant particles during the combustion process. The refuge will meet the Clean Air Act emission standards by adhering to the Massachusetts air quality requirements during all prescribed fire activities.

## Fire Management Organization, Contracts, and Cooperation

Fire management technical oversight for the refuge has been established in Region 5 of the Service, using the fire management zone approach. Under this approach, fire management staffing is determined by established modeling systems based on the past fire management workload of a group of refuges, and possibly interagency partners. The fire management workload consists of historical wildfire suppression activities, as well as past hazard fuels treatments. Massasoit NWR is managed as part of the Service's New England fire management zone, which supports the six New England states. The fire management staff and support equipment are located at Rhode Island and Eastern Massachusetts National Wildlife Refuge Complexes and Acadia National Park, and are shared among all refuge/park units under the direction of the National Park Service's North Country Zone Fire Management Officer. All fire management activities are conducted in a coordinated and collaborative manner between the Refuge and other Federal and non-Federal partners. The fire management zone has also developed a close working relationship with Massachusetts Department of Conservation and Recreation and Massachusetts Division of Fisheries and Wildlife. A new Interagency Spatial Fire Management Plan is currently being developed covering all the refuges within the Refuge Complex. A target date for completion is the end of fiscal year 2017.

### References Cited:

Crosby, B.W. 2003. Images of America. Cape Cod Firefighting.